

# European perch *Perca fluviatilis* from estuary of the Vistula Lagoon (Poland): muscle tissue parasites and diet

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Fig. 1. Sampling area in southern Baltic Sea.

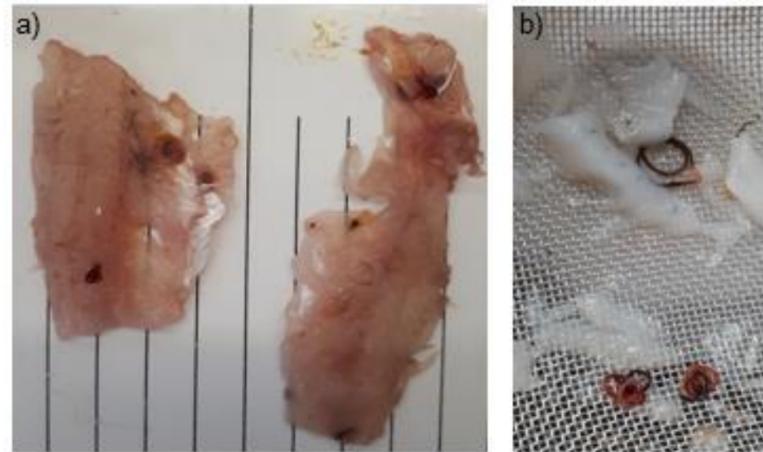


Fig. 2 a) Parasites in muscle tissue before digestion  
b) *Camallanus lacustris* visible after digestion



Fig. 3. *Gammarus* sp. - the dominant diet component

## INTRODUCTION

European perch (*Perca fluviatilis*) in the Vistula Lagoon belong to the most important fish species for fisheries and ecosystem function. It is also eagerly chosen by consumers. During recent years there were reports from the anglers about the presence of parasites in the muscle tissue of these fish. That arouse concern of consumers health. The aim of our studies was to describe the parasite composition and diet of European perch from the Vistula lagoon.

## MATERIAL & METHODS

Fish (total length 10-25cm) were caught by an angler in the estuary section of one of the lagoon's tributaries (Fig. 1) - the Nogat River in June 2020 and transported to the laboratory for further analysis. During standard ichthyological analyses of 42 fish the viscera and muscle tissue were inspected for the presence of parasites. The unskinned fillets (Fig. 2a) were digested in artificial gastric juice to reveal the presence of parasites. All parasites were collected and identified (Fig. 2b).

## RESULTS & CONCLUSIONS

During visual inspection two infected fish have been detected. Digestion revealed more infected fish. The prevalence of infection with nematode *Camallanus lacustris* was 21,43%, and intensity of infection 1-6 parasites/fish. Even 10cm long fish were infected. To determine the diet composition of perch, the stomach content of each perch was analyzed. Stomachs of 81% of fish were empty. The dominant prey was *Gammarus* sp. (Fig. 3) Previous studies focused on the parasite fauna of European perch from the Vistula Lagoon were conducted between 1994 and 1997 and the infection level was on much lower level: prevalence 3,5 % and intensity of infection 1-2 parasites/fish (Rolbiecki 2003). Despite of the fact, that *C. lacustris* does not cause any zoonosis, the presence of the nematodes in the muscles tissue of fish might discouraging for the consumers.

## REFERENCES

\*Rolbiecki L 2003 Diversity of the parasite fauna of cyprinid (Cyprinidae) and percid (Percidae) fishes in the Vistula Lagoon, Poland. *Wiadomości parazytologiczne*, 49(2): 125-164